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"What Happens in Romania..." Comes Back to the United States and Becomes a Quilt

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Summary:

Our senior thesis project is a quilt that chronicles our experiences on the Maymester trip to Romania through the Honors College, during which we were able to shadow surgeons in the Oncology Hospital and General Surgery III Hospital in Cluj-Napoca. In our quilt, we included some of the most common surgeries we saw while shadowing Romanian doctors: breast removal, gall bladder removal, appendix removal, removal of a section of the large intestine, and removal of the uterus. The final product of this quilt shows every level of the abdominal muscles and organs from the anterior skin to the kidneys.

To help our success in creating this quilt, we enlisted four professors that are experts in each of the different aspects of our project. Dr. Richard Showman was the Biology Director of this thesis, helping with both the biological and surgical aspects of the body. Dr. Showman accompanied us on our trip to Romania as his second trip there, and is familiar with the procedures we saw and the biology behind them. Dr. Erika Blanck, the second faculty advisor on the trip to Romania and the gross anatomy professor at the University of South Carolina School of Medicine, acted as the Anatomy Second Reader for this thesis. With her assistance, we gained access to the gross anatomy lab to study the cadavers to create a more comprehensive quilt. In the lab, we took measurements of the entire body and the organs in the abdominal cavity to create a more accurately sized body. To gain better insight into the art aspect of the quilt, we were advised by two members of the art department faculty. Sara Schneckloth is an associate professor with a sincere interest in the combination of anatomy and art, and was our Art Director for this thesis. Andrew Graciano, also an associate professor, is interested in a more theoretical approach to the combination of science and art, and was our Art Second Reader for this thesis.

Our quilt portrays a patient's body on the operation table, similar to the scene we witnessed repeatedly in Romania. The majority of the body is covered by "sterile" material with just the abdominal cavity exposed, as is the norm for surgeries targeting a specific part of the body. The abdominal organs are covered with each layer of muscle visible and able to be opened or closed. The operations included in the quilt are denoted by removable organs that allow viewers to interact with our project by removing and replacing organs as if they were surgeons themselves. On top of "performing surgery," we are able to demonstrate the proper tying of suture knots, and the option to suture the abdomen shut "post-operation."

The basis of our research for the quilt part of our thesis is from observations made in our time in Romania. The written portion of our thesis includes research into the Romanian healthcare system to provide some explanations for what we experienced on our trip and to gain further understanding of the surgeries we witnessed.

This thesis is relevant because of the increasingly popular combination of science and art today. As opposed to simply writing a journal or memoir of our time in Romania, this quilt exemplifies our experience there in a creative and innovative way that is easily and quickly perceived. We hope this quilt will portray the incredible experiences that we could not have received in the United States.

I. Background of Healthcare in Romania:

The government in Romania was set up as a republic in 1989, when the Soviet Union released its control on the territory, and almost all communist leaders were removed from power.

In 1990, just twenty-three years before our trip to Romania, the new republic had its first multiparty elections, and by 1991, their new Constitution had finally been established.

(Government) The head of the government is the Prime Minister, which is selected by the President and approved by Parliament. The President serves five-year terms, and may serve a total of two terms in office. The Cabinet of Ministers run and organize every sector of the government, from healthcare to transportation to social dialogue, and are appointed by the Prime Minister. Parliament is the legislative part of the Romanian government, and is made up of the Senate and the Chamber of Deputies. They are elected by the different regions of Romania in four-year terms. (“Romania”)

The healthcare system in Romania is coordinated by the Minister of Health in the Prime Minister’s Cabinet. It is much different than the healthcare system in the United States because healthcare is provided to all Romanian citizens by the government, which seems to be a relic of the days when Romania was a Communist state under the direction of the Soviet Union. Even though all healthcare is provided by the government, unfortunately only three to five percent of the country’s gross domestic product is budgeted for healthcare. (Haivas) The budget is created by the National Prognosis Commission made up of experts selected by the Prime Minister. After the budget is created, it is reviewed by the Prime Minister and the Minister of Finance, and revised throughout the year. By October the year before a budget is installed, Parliament receives the budget and must approve it by the end of the year. (Ruffner, Wehner, and Witt) This establishment of the budget by a committee appointed by the Prime Minister, who is also

not elected by the people, is very interesting because it means that those deciding the budget are not elected or at all chosen by the people of Romania. The Romanian healthcare system is considered “in the red” on many quantitative analyses of healthcare, including accessibility, outcome indicators, and range of healthcare services, and is ranked 33 out of the 35 countries in the European Union for healthcare. (Turton) This means that many of the citizens of Romania are unlikely to receive all the healthcare coverage needed, and even the healthcare received may not be the best quality of care.

One major difference we noticed as we worked with different physicians and medical students is that a large number of them were considering moving to another country to practice healthcare. Some of them even expressed interest in moving to the United States, despite the intensive tests required for graduates of uncertified (non-US) medical schools to become certified to practice medicine here. This was a huge surprise at first, but after some research, we found that the healthcare system is even more difficult for doctors than we witnessed while in Romania. For many doctors to have any chance of becoming hired, especially in large cities, they must bribe those hiring them. The bigger the city of the practice, the larger the bribe. Even after the necessary bribe to get hired, many doctors still have incredibly low salaries. They receive one of the lowest salary rates for doctors all over the world, and sometimes even lower than other workers in Romania. In order to make up for that deficit, many of those doctors accept and even expect to receive bribes from their own patients. Patients may support this bribing system in the hopes that they will be guaranteed better care, because the bribes will foster a stronger relationship with their doctors. (Stancu)

Several of the doctors trained in Romania leave the country because of this, because they do not want to have to pay a bribe to get hired, but prefer not want to work in rural areas.

(Stancu) In rural areas, funding is even more scarce and even the minimum of necessary supplies are most likely not provided. Romanian doctors are leaving because they are more likely to get jobs outside of the country while still being able to stick to their own ethical stances. This occurs in spite of the issue of a huge lack of healthcare providers in Romania, with not enough doctors and specialists in some areas, and too many in others. (Stancu) In 2010, there were only 2.39 physicians for every 1,000 citizens and only 6.3 available hospital beds for every 1,000 citizens in Romania. (“Romania”) Despite ongoing complaints, the Minister of Health insists that they have accurately provided the exact number of residencies in areas that need physicians most, and have still not increased the salaries of doctors. (Stancu) Some doctors are even turning to the private sector for work, which is becoming a more popular means of receiving healthcare in Romania. (Haivas)

All of these were issues we repeatedly witnessed in Romania. When we went on rounds with doctors or to tour the hospital, there were four beds in every patient room we saw. The beds were placed just inches apart with room for only one guest per patient. If a patient needed to talk to a doctor, all other patients in the room would hear all information and prognoses. Surgeries done in both Oncology and General Surgery were done one after the other, with enough downtime between for technicians and nurses to sanitize the room and doctors to scrub in again. There were no recovery rooms or post-operation rooms, so patients were placed in the hallway outside of operating rooms to wake up from surgery and temporarily recover before being taken back to their hospital room.

Preventative actions and periodic testing for disease is a relatively new concept in Romania, and a huge topic of discussion for provision of funds within the healthcare system, many of our doctors told us. A majority of the surgeries we witnessed were from issues that had

been ongoing for a couple of years; for some, for decades. We saw stage four Ovarian cancer with a tumor so large it could be seen from outside the body and a gall bladder filled with hundreds of stones that had been accumulating for twenty years. In all of the surgeries with severe cases we witnessed, the doctors who could speak English told us that these problems could have been relatively easily fixed had they been addressed or detected years before. Many of the patients in these situations did not come in until their pain was unbearable or their issues were visible from outside of the body. This could be due to the lack of physicians in Romania or the distrust of any government run sectors, stemming from the communist era. In any case, if preventative medicine were more common, many of the surgeries we witnessed may have been completely different.

Despite all of the issues we witnessed in the healthcare system while in Romania, something particularly striking is that the tools and supplies they have were never taken for granted. Every bed, every towel, every scalpel, was constantly accounted for, and supplies were never wasted. The worst nightmare of a surgeon accidentally leaving supplies inside a patient after surgery was not even a concern in Romania because those supplies would be needed later, and could not be spared to be forgotten. Everything was sanitized and packaged in large silver boxes that contained the exact amount of supplies needed for each type of surgery, which could easily be picked up and brought in to the operating room when that surgery was being performed. To us, this shows the resilience of the Romanian people, who, despite being a relatively new government with multiple issues to resolve in their healthcare system and government as a whole, continue to work with what they have to provide the best patient care possible. The doctors that we had the privilege of shadowing were kind to each patient and worked to establish a strong and trusting relationship with each one. One doctor prayed with each patient as they

were being taken into the operating room, spoke with them as they were put under anesthetics, and checked on them at least twice following their surgery. This level of care and personal attention, despite the adversity those in the healthcare profession are faced with, was incredible and inspiring.

II. Description of our Maymester to Romania:

Our Maymester Premedical trip with the South Carolina Honors College took us to Cluj-Napoca, Romania. A previous Honors College student, Tudor Oroian, organized the trip, and Dr. Richard Showman and Dr. Erika Blanck advised us and were our resources for any anatomy questions. While in Romania we spent a total of ten days in the hospital, with our time split between the Oncology hospital and a General Surgery hospital. For the other days in our three weeks there, we travelled around Romania's countryside and to Hungary to experience Romanian and Hungarian culture. One of the best aspects of shadowing doctors in Romania is that we were able to get close to the surgeries being performed to really experience the atmosphere of an operating room.

In the Oncology hospital, we got to tour the facility and learn about the different equipment they had. Their pride in their "new age" equipment, much of which was previously used donations from American hospitals, was refreshing and compelling. We got to see their radiology room, chemotherapy area, and where research and analyses are performed on tumors removed from patients' bodies. On top of experiencing all the functions of the hospital, we were able to go into the operating rooms to observe operations. Some of the surgeries we commonly saw were: radical mastectomy, when the entire breast and three levels of lymph nodes were removed; oophorectomy, where the ovary was removed; hysterectomy, where the uterus is removed; and biopsies taken from different areas of the body to determine the severity of the cancer.

In the General Surgery III Hospital, we were each assigned to doctors that we followed the entire time we were at the hospital. Our doctors, Dr. Necula and Dr. Zaharie, and residents, Ema, Jamil, Dr. Hodor, and Dr. Ciorogar, performed up to five surgeries in one day, mostly

within the abdominal cavity, as well as other surgeries involving the neck, scrotum, and rectum. Sometimes we were able to go on rounds with our doctors in the morning to check in with patients, but we mostly met our doctors in the operating area and followed them into the operating rooms to observe surgeries. The most common surgery we observed was the cholecystectomy, in which the gall bladder is removed. When we saw this type of surgery in Romania, it was usually performed laparoscopically, which uses an optic instrument connected to a monitor to show the inside of the body. The other tools were inserted into the body through small incisions in the skin and controlled from the outside to clamp, cut, and remove the organ.

Other common surgeries involved various anastomoses of the stomach, small intestine, and colon in which a section of these organs needs to be removed and then the remaining parts are connected to complete the continuous tube of the gastrointestinal tract. Surgeries we less commonly observed were: draining a hydrocele, a build-up of fluids between the tunica vaginalis and tunica albuginea, the layers of the scrotum; hemorrhoid repair; lipoma, benign tumor of the fat tissue, removal; and adenoma removal. A surgery done at the same time as a cholecystectomy was an inguinal hernia repair, when a small section of the intestine that had pushed through the inguinal ligament was moved back into the body cavity and mesh was used to reinforce the wall where the intestine had pushed through; an exploratory surgery to examine necrosis of the liver and a tumor in the pancreas; and an appendectomy, when the appendix was removed.

During the trip, the people of Romania made a lasting impact on us. Their national pride and insistence on pushing forward as a country motivated us to want to learn more about their country and meet more of the Romanian people. In our time there, we ran into a woman selling homemade Romanian crafts as a part of a craft guild. She allowed us to ask more about the

country and its history from a Romanian citizen's perspective. We bought pins decorated with the Romanian flag from her, and when we asked about the significance of the flag, she told us "the blue is the blue of the sky, the yellow is for the grains for bread, and the red is for the forefathers of the country and those who were a part of the revolution." Her beautiful description of what the Romanian flag means to her and other Romanian citizens is memorialized in the framing of our quilt and along the side.

We also got very close to the doctors and residents we were assigned to because we spent upwards of six hours a day with them. They taught us things about Romanian culture, as well as lessons in anatomy and how patients should be treated. We wanted our Senior Thesis to commemorate our incredible experiences in Romania and represent all the beauty we saw in this small Eastern European country. Our quilt documents our time in the operating rooms of the General Surgery III hospital and the Oncology hospital, as well as our time learning from the people of Romania.

III. The Making of the Quilt:

Our quilt portrays our trip to Romania by showing some of the more common surgeries we saw there. It represents an operating room with an average sized woman, of height 5' 6'', lying on a metallic, silver operating table. Surrounding the operating table are the neutral tiles of the operating room floor. The quilt is bordered by the colors of the Romanian flag to pay homage to the country we gained so much medical experience in. In total, the quilt is 4.5 feet by 7.5 feet.

To begin, we first made the base of our quilt. The front of the quilt focuses on a 65 by 30 inch piece of silver satin surrounded by 30 by 6 inch strips of sand colored cotton fabric. On the outside of the quilt are 30 by 6 inch strips of red, yellow, and blue cotton. The back was created with 30 by 12 inch pieces of white cotton fabric surrounded by 12 by 12 inch squares of garnet themed cotton strips and interspersed 12 by 6 inch strips of black cotton. The entire front of the quilt was assembled, followed by the entire back. Then the two were sewn together and batting was inserted in between. To quilt the two sides together, the outside of the silver satin and the outside of the "floor tiles" were reinforced by "stitching the ditch," or sewing along the seam created from sewing the front of the quilt together. Then we sewed the outline of tiles on the neutral colored strips of cotton.

To begin the three-dimensional body portion of the quilt, we got large blocks of foam and formed them into the shape of the pelvis and the chest cavity to create the upper and lower barriers of the abdominal cavity, using an electric knife. We stuffed panty hose with poly-fil, batting, and stress balls (as the heel of the foot) to create the legs of our patient. We pulled the filled pantyhose up over the sides of the hips and attached them with safety pins. We bought a foam head and neck and attached it to the shoulder piece with superglue and gorilla glue. Thinner sections of foam were used to form the support for the sides of the body, which were

attached to the hips and chest using wooden dowels and superglue. To make the body look more realistic, we covered the foam and stuffed pantyhose with skin colored cotton attached with spray adhesive. On the chest, to represent a radical mastectomy, we included yellow terry cloth material to represent a layer of fat and red cotton to represent the blood from the incision made for the surgery.

The skin of the abdomen shows the layers of fat, muscle, and the peritoneum. The layers from the outside of the body to the inside are skin tone cotton for the skin, fuzzy yellow terry cloth for the layer of fat below the skin, textured striped dark pink polyester for the external oblique, textured striped lighter pink polyester for the internal oblique, shiny light pink polyester for the transversus abdominus, and smooth pink polyester for the peritoneum. The rectus abdominus was excluded from these layers because it would have been cut right down the middle in the surgeries we included. These layers were sewn directly onto the quilt using a sewing machine, and sewn again at the width of the abdominal wall foam, to create a kind of pouch to hold the wall up and in place. To ensure the parts of the body would be secure on the quilt, we sewed ten elastic straps on the quilt to secure the head, chest, hips, and legs. Then we pulled all the components of the body through the straps, and added additional stitches and pins around the quilt to secure all of the parts together.

On the inside of the abdomen, we added additional skin colored fabric on the upper abdominal wall and smooth pink polyester to the inside of the lower abdominal wall. Both of these were secured to the base of the quilt, sidewalls, and skin of the body to create a fully covered abdominal cavity. To begin the organs, we went into the anatomy lab at the University of South Carolina Medical School to measure the organs of one of the cadavers in the lab who was exactly 5'6". We used the electrical knife to cut the shape of the liver, which takes up most

of the upper part of the abdominal wall or diaphragm. This was covered in deep tan burlap by Christy Ehlers, who was better able to preserve all of the curves of the liver previously carved with the electrical knife. The stomach and small intestines were made using light pink cotton fabric filled with poly-fil. The small intestine was the exact length of the average small intestine: twenty feet. The outside structure of the colon was created by Christy Ehlers using a medium shade of tan colored cotton and spandex blend in a wave-like pattern, stuffed with poly-fil. The tumors of the sigmoid colon were made with Model Magic clay. The kidneys were created using medium tan colored cotton fabric also stuffed with poly-fil, and the urinary bladder was created with light tan colored cotton fabric sewn into an empty pouch. The uterus and ovaries were made from deep pink smooth polyester with poly-ribbon and pompoms attached, stuffed with poly-fil.

The descending aorta and the vena cava were represented by red and blue felt, respectively, sewn as tubes and pulled over reshaped pieces of paper towel rolls. The spleen and appendix were made from red polyester-cotton blend fabric, with the spleen stuffed with poly-fil. The pancreas was made from yellow batiked cotton fabric stuffed with poly-fil. The gall bladder was made of lime green flannel fabric surrounded by iridescent green mesh, with yellow and black glass beads inside as gall stones.

After making all organs, we had to correctly shape them to fit the body and fasten them inside the abdomen. The liver was sewn onto the upper part of the abdominal wall, and the stomach was sewn in a position to curve around the liver, with the spleen attached to the back of the stomach. The duodenum was attached to the end of the stomach with a whip stitch, and the bile duct and blood vessels were attached to the same junction. The gall bladder was placed under the liver with two snaps and attached to the bile duct with a hook and eye. In order to make the small intestine appear convoluted and compact, loops of mesh were sewn together to

form the mesentery with the tube of the intestine pulled and twisted through the loops, and sewn in place.

The colon was attached to the end of the small intestine with a whip stitch, and an appendix was attached to the colon with a snap. To hold the colon in its draped position across the abdomen, snaps were attached to the top and bottom of both abdominal walls. A removable sigmoid colon was created with snaps placed at the end of the descending colon in the same manner as at the end of the sigmoid colon. The other side of the snaps was attached at the top of the sigmoid colon and the top of the rectum, so that the sigmoid colon could be removed and the descending colon could be reattached to the rectum to represent an anastomosis. Next to the rectum, the uterus and ovaries were attached with a snap and the urinary bladder was sewn in. On the back wall of the abdomen, the kidneys were sewn down with ureters and blood vessels attached to them.

The additional finishing touches on the quilt were done outside the abdomen. Snaps were attached to the sides of the body to secure the skin, and hook and eyes were attached above and below the abdomen to secure the skin over the abdomen. Blue sheets from the medical school were sutured on to the quilt at the four corners of the silver table and on either side of the abdomen in the same manner as the sheets were attached in Romania. Loops were created from leftover fabric from the organs and sewn to the top of the quilt as a means of hanging it. On the left side of the quilt “the blue of the sky, the yellow of the grain, and the blood of our ancestors” was written, to commemorate our experiences in Romania. A stand was created out of plastic piping to hold the quilt up for presentations.

IV. Details of the Surgeries:

The surgeries included in the quilt are radical mastectomy, cholecystectomy, appendectomy, total hysterectomy, and resection of the sigmoid colon followed by anastomosis between the descending colon and rectum.

We represented the radical mastectomy by showing where the incision would be and the beginning steps of suturing the incision closed. The incision through the skin reveals a layer of fat and some blood underneath. Only partially suturing the incision closed shows the various steps involved in suturing in incision closed after surgery. The suture string was threaded through the skin about half an inch away from the incision. Knots were then hand-tied, varying between the classical and gynecological knots that we were taught how to tie. Two knots were done with the right hand and then it was “locked-in-place” by tying one knot with the left hand, or vice versa. In the surgeries, after the incision was closed with the suture string and the hand tied knots, one doctor would hold up the string, pulling it straight up away from the body, and another doctor would cut each string one by one right above the knot, turning the scissor parallel to the string right before making the cut. To show the progression of suturing we cut the first two sutures and left four other sutures with long strings so that we are able to pull them away from the body to demonstrate the process. The four long suture strings are actual suture string from an operating room in Romania, given to us by a nurse so that we could practice our hand tying knots.

In the cholecystectomies we saw in Romania, the cystic duct and cystic artery are clamped with titanium clips and cut, and then the gall bladder was dissected away from the liver using an electric hook cauterizer. Since the liver is such a vascular organ, there is a lot of bleeding involved in this procedure so the doctors were continuously cauterizing the liver to stop

the bleeding. So much cauterizing had to be done that liver looked scabbed where the gall bladder was previously attached. To show this surgery on our quilt, the gall bladder was attached to the liver with snaps and the cystic duct was attached to the common bile duct by a hook and eye. The removal of the gall bladder reveals a blackened area on the liver created by stamp ink, representing the cauterized area.

Many of the cholecystectomies we saw in Romania involved gall bladders with gall stones, sometimes even hundreds of stones, of mixed yellow and black color. The gall bladder on our quilt is filled with yellow and black glass beads, some threaded on a string that can be pulled out through the cystic duct. In Romania, to remove the gall bladder from the body cavity, it was often just pulled through one of the laparoscopic incisions in the abdomen. If the inflamed, stone-filled organ was too large to pass through the incision, the doctors may place it in a bag that is introduced into the cavity, bring the bag up to the opening in the abdominal wall, partially pull the bag through the hole so that the opening of the bag is outside the body and the contents can be reached, and then the doctors can cut away pieces of the gall bladder to make it fit through the opening.

To demonstrate the need for the appendectomy, we gave the appendix the look of being inflamed by making it longer and wider than normal and made out of a bright red fabric. We attached the appendix to the colon using one snap that allows it to easily be removed. The actual appendectomy surgery is also relatively simple with the appendix first being clamped and then cut off.

The resection of the sigmoid colon was made by connecting the sigmoid section of the colon to the descending colon and rectum with snaps. The pointed end of the descending colon fits into the widened beginning part of the sigmoid colon, just as the sigmoid fits into the rectum.

Once unsnapped, the sigmoid colon can be removed from the body cavity and the pointed end of the descending colon can be inserted into the widened end of the rectum and snapped together to represent the anastomosis. The sigmoid colon must be removed in this patient because of several tumors, made out of hardened Model Magic clay, which can be felt within that section of the colon. We saw several surgeries in Romania that involved various kinds of anastomoses, often due to tumors creating a blockage making eating and defecating extremely difficult or impossible. Of the different types of anastomoses we saw, one type is a terminal to terminal anastomosis, in which one end of the cut tube is connected directly to the other end of the cut tube. This is the type of anastomosis that we are representing on our quilt. A lateral to terminal anastomosis is used when the tubes being connected have different diameters. For this type, the terminal end of one cut tube is sutured closed and then the terminal end of the other cut tube is attached to the lateral side of the recently closed tube; however the lateral side does not have an opening, so a new opening is made in the lateral side to make the tube continuous.

The uterus was made with the Fallopian tubes extending out and looping down, with an ovary attached at the end of each tube. The ovaries were secured to the body of the uterus to keep the organs shaped and together as a unit within the body cavity on our quilt. To demonstrate the total hysterectomy, the base of the uterus/vagina extending down from the uterus was attached to the body wall by one snap, allowing the whole structure to be removed. While the definition of “hysterectomy” refers to the removal of the uterus alone, it was also commonly used to describe the removal of any of the parts of the female reproductive system, in our case, the uterus, Fallopian tubes, and ovaries.

V. Sources:

- "Government." Romania Tourism. Romanian Tourist Office, n.d. Web. 05 Apr 2014. <<http://www.romaniatourism.com/government.html>>.
- Haivas, Irina. "Health care in Romania: Fighting collapse." CMAJ : Canadian Medical Association Journal. 182.7 (2010): 654-655. Web. 12 Apr. 2014. <<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2855911/>>.
- "Romania." The World Factbook. <<https://www.cia.gov/library/publications/the-world-factbook/geos/ro.html>>.
- Ruffner, Michael, Joachim Wehner, and Mathias Witt. "Budgeting in Romania." OECD Journal on Budgeting. 4.4 (2005): 27-54. Web. 12 Apr. 2014. <<https://www1.oecd.org/gov/budgeting/39997341.pdf>>.
- Stancu, Elena. "Mass exodus: Why corruption in Romania's healthcare system is forcing its doctors to work abroad." Independent. (2014): n. page. Web. 12 Apr. 2014. <<http://www.independent.co.uk/news/world/europe/mass-exodus-why-corruption-in-romania-healthcare-system-is-forcing-its-doctors-to-work-abroad-9035108.html>>.
- Turton, Shaun. "Romania's health care system in very poor shape, finds report." Romania Insider: Daily News. (2013): n. page. Web. 12 Apr. 2014. <<http://www.romania-insider.com/romania-health-care-system-in-very-poor-shape-finds-report/110798/>>.

Pictures:



Kaitlyn ironing out fabric to begin the quilt



Our quilting expert, Christy Ehlers, showing us how to quilt



Kaitlyn sewing under the close supervision of the mastermind behind the name of the quilt



Ashley ironing out the squares for the base of the quilt



The complete front and complete back of the quilt



Stuffing the legs for the body on the quilt



Sewing Batting onto the quilt



Skin and muscle layers attached to the base of the quilt



Finished organs outside the body



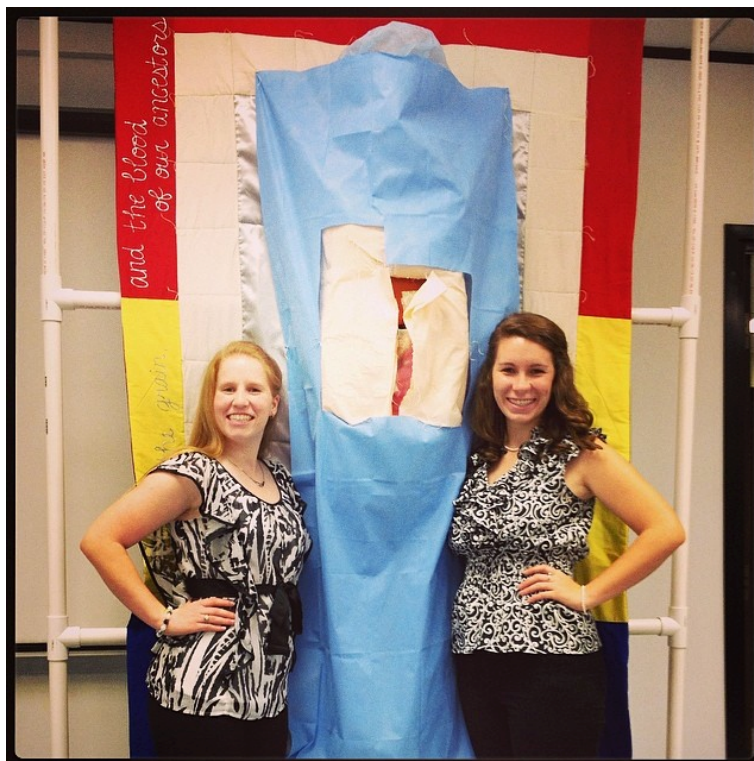
Finished organs inside the body



Holding up the quilt to make sure the organs are secured



Presenting at our defense



Excitement after finishing our defense



Proud advisors after our defense